

**REMARKS**

**Foreign Priority:**

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority under 35 U.S.C. § 119(a)-(d), and for confirming that the certified copy of the priority document has been received at the Patent Office.

**Information Disclosure Statement:**

Applicant thanks the Examiner for the initialed and returned Forms PTO/SB/08 A & B filed on September 25, 2001 and February 21, 2002, thus indicating that all of the references listed thereon have been considered.

**Drawings:**

The Examiner has indicated that the drawings filed with the present application have been objected to. Each of these objection are discussed in turn below:

- (1) Figure 2 - The Examiner has objected to this Figure indicating that the designations p1, q1, r1, p2, q2 and r2 should be shown in the Figure, as these designations appears both in the claims and the specification. However, Applicant respectfully submits that the Examiner is incorrect with regard to the Examiner's understanding of these designations. Specifically, Applicant submits that these terms identify corresponding numbers of input/output ports, and are not specific pin positions. Stated differently, these terms are integers which are used to define an amount of inputs/outputs and are not specific pin positions. As such, Application submits that the drawings and claims are clear, and thus no amendment to the figures is necessary.

- (2) Figure 2 - Applicant submits herewith a corrected Figure 2 with a proposed drawing correction. Specifically, Applicant has corrected the designation "FXC" to "MXC" to correspond to the written description. Applicant hereby requests the Examiner approve the proposed drawing correction.
- (3) Figure 2 - The Examiner has also objected to Figure 2 as failing to show the "wavelength converters" which are referenced in claim 4. Applicant has cancelled claim 4 without prejudice or disclaimer and hereby requests the Examiner withdraw this objection.
- (4) Figure 1 - The Examiner has objected to Figure 1 as not being labeled "Prior Art." Applicant submits herewith a proposed drawing correction to Figure 1, in which this Figure is identified as "Prior Art." Applicant hereby requests the Examiner approve the proposed drawing correction.

**Claim Rejections:**

Claims 1-4 are all of the claims that have been examined in the present application and currently all of the claims stand rejected.

***35 U.S.C. § 112, 2<sup>nd</sup> Paragraph Rejection - Claims 2-4:***

The Examiner has rejected claims 2-4 under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph for an alleged spelling error in claim 2 (i.e. "bond" instead of "band.") However, in reviewing Applicant's copy of the claims, Applicant sees no such error. Applicant submits that the claims properly read "band," and thus submits that no change is required.

However, Applicant notes that if the Examiner's copy of the claims reads "bond," Applicant authorizes the Examiner to correct this error via an Examiner's amendment, if needed.

Further, Applicant has amended the claims 1-3, as shown in the previous section, to clarify the claimed subject matter. Further, Applicant has added new claims 5-7 to capture additional subject matter.

Further, Applicant notes that the above referenced claim amendments have been made to merely clarify the claimed invention and are not intended to narrow the original scope or spirit of the claims in any way.

***35 U.S.C. § 102(e) Rejection - Claims 1 and 2:***

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,512,612 to Fatehi. In view of the following discussion, Applicant respectfully traverses the above rejection.

In rejecting claims 1 and 2, the Examiner has referenced Figure 3A, of Fatehi, and asserts that this Figure discloses each and every feature of the claimed invention. Specifically, the Examiner asserts that the p1 and p2 ports correspond to NK+0, +1 and +2 ports, and NK+1, +2 and +L, respectively, and that the q1 and q2 ports correspond to the ports OL<sub>1</sub>-IN, 2-IN and K-IN and OL<sub>1</sub>-OUT, 2-OUT and K-OUT ports, respectively. Further the Examiner is equating the optical space switch 201 with the switching matrix of the present invention. Thus, the Examiner asserts that Fatehi discloses each and every feature of the claimed invention.

However, unlike the present invention, the switch in Fatehi does not have a multigranular architecture. This is discussed on page 3, lines 2-10 of the present application. In Fatehi, the switch 201, in Figure 3A, is dedicated for switching only wavelengths.

In the present invention, the switch has means for switching at least two granularities among the three possible granularities (i.e. wavelengths, bands and groups of bands), which are not constituted by separate matrices for the different granularities, respectively. In the prior art, including Fatehi, separate switch matrices have been used for the different granularities because input ports dedicated to a given granularity would not have been set in communication with an output port dedicated to a to another granularity.

Further, using separate matrices results in having a smaller device, and thus a cheaper implementation (see discussion on page 4, lines 19-26 of the present application). However, using a single matrix, as set forth in the present application, which is capable of coupling any input of any granularity to any output of any granularity involves the creation of an oversize switching device because the states of the matrix coupling inputs to outputs of different granularities will not be used. See also, Applicant's discussions on page 4, line 30 to page 5, line 22 of the present application.

In view of the foregoing, Applicant submits that Fatehi fails to disclose each and every feature of the claimed invention. Therefore, Applicant submits that Fatehi fails to anticipate the claimed invention as required under the provisions of 35 U.S.C. § 102(e).

Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 102(e) rejection of these claims.

AMENDMENT UNDER 37 C.F.R. §1.111  
Application Number 09/961,286

Our Ref: Q66337  
Art Unit: 2633

***35 U.S.C. § 103(a) Rejection - Claims 3-4:***

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fatehi in view of U.S. Patent No. 6,404,940 to Tsuyama. However, as Applicant believes that Tsuyama fails to cure the deficient teachings of Fatehi, Applicant submits that no independent argument regarding these claims is necessary, and that claim 3 is allowable based on its dependence.

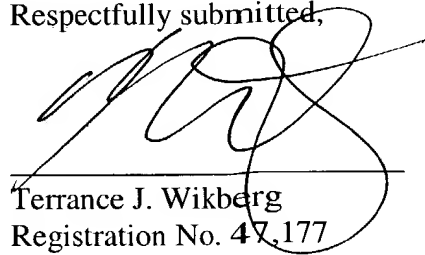
Further, claims 5-7 are also allowable based on their dependence of claim 1.

**Conclusion:**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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